

## NASA's Earth Observations of the Global Environment: Our Changing Planet and the View from Space

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A birds eye view of the Earth from afar and up close reveals the power and magnificence of the Earth and juxtaposes the simultaneous impacts and powerlessness of humankind. The NASA Electronic Theater presents Earth science observations and visualizations in an historical perspective. See the latest spectacular images from NASA remote sensing missions like TRMM, SeaWiFS, Landsat 7, Terra, and Aqua, which will be visualized and explained in the context of global change and man's impact on our world's environment. See visualizations of global data sets currently available from Earth orbiting satellites, including the Earth at night with its city lights.

Shown in high resolution are visualizations of tropical cyclone Eline and the resulting flooding of Mozambique. See flybys of Cape Town, South Africa with its dramatic mountains and landscape, as well as satellite imagery of fires that occurred globally, with a special emphasis on fires in the western US during summer 2001, and how new satellite tools can be used to help fight these disasters from spreading further. See where and when lightning occurs globally, and how dramatic urbanization has been in the desert southwest since 1910.

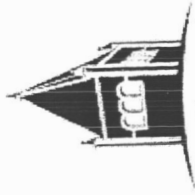
Spectacular visualizations of the global atmosphere & oceans are shown. Learn when and where carbon is absorbed by vegetation on the land and ocean as the product of photosynthesis. See demonstrations of the 3-dimensional structure of hurricanes and cloud structures derived from recently launched Earth-orbiting satellites, and how hurricanes can modify the sea surface temperature in their wake. See massive dust storms in the Middle East as well as dust transport sweeping from north Africa across the Atlantic to the Caribbean and Amazon basin.

Learn where and how much the temperature of the Earth's surface has changed during the 20<sup>th</sup> century, as well as how sea ice has decreased over the Arctic region, how sea level has and is likely to continue to change, and how glaciers have retreated worldwide in a response to global change.

We will illustrate these and other topics with a dynamic theater-style presentation, along with animations of satellite launch deployments and orbital mapping to highlight aspects of Earth observations from space.



NASA's Earth Observations of the Global Environment  
*Our Changing Planet & the View from Space*  
Sponsored by Nicholas School of the Environment, Duke University and the  
University of North Carolina



Morehead Planetarium and Science Center, University of North Carolina, Chapel Hill – 1:00 p.m. – Sunday – June 12, 2005

The NASA Electronic Theater presents visualizations of Earth observations from space that are available today, with an emphasis on the new capabilities for viewing the integrated Earth system. See the latest spectacular images from NASA remote sensing missions like TRMM, SeaWiFS, Landsat 7, Terra, and Aqua, which will be visualized and explained in the context of global change and man's impact on our world's environment. See visualizations of global data sets currently available from Earth orbiting satellites, including the Earth at night with its city lights.

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*A Time of Spectacular Visualization*

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Dr. Michael King: NASA Goddard Space Flight Center

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